

VOLPE ENVIRONMENTAL PARTNERSHIP WITH U.S. POSTAL SERVICE

The award-winning environmental initiatives of the United States Postal Service make it one of the "greenest" of all federal government agencies. Given the size and scope of its operations, the Postal Service required outside technical support to quickly develop and implement specific programs that would make good business sense. For the past two and one half years, staff members from the Volpe Center have played a key role in the implementation of initiatives of this major government agency, making a significant contribution to the nation's environmental preservation efforts.



Larger than all but 30 international corporations, the United States Postal Service (USPS) is a big business. And, with more than 750,000 employees in 40,000 facilities around the country, even the smallest efforts by the USPS on behalf of the environment can have a major impact.

So when the Postal Service sought help in implementing its award-winning environmental program efforts, it turned to the Volpe Center for assistance. During the past two and one half years, personnel from the Volpe Center's Environmental Engineering and Automation Technology divisions have worked with USPS managers and staff on virtually every aspect of environmental management at the agency, from conducting on-site environmental analyses to developing programs to reduce water consumption and air pollution at Postal Service facilities.

The partnership between the Postal Service and the Volpe Center has come to characterize the unique strengths and diversity of talents that the Volpe Center can bring to bear on its work for clients. "The Postal Service is a world-class leader in environmental management," says Phil Mattson, a member of the Environmental Engineering Division and Volpe Program Manager for the USPS project. "And the needs of the Postal Service in implementing their environmental initiatives represent a good fit with the

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strengths of the Volpe Center, since we can provide them with a broad variety of program support services in all 10 USPS geographic areas."

THE ENVIRONMENTAL CHALLENGE FACING THE USPS

Think for a moment of the environmental resources required to run a major manufacturing corporation like Chrysler or Hewlett-Packard, or a retailing giant like Kmart or Sears. Much like running a big city, keeping a major company in business requires significant utilization of natural resources. Thousands of gallons of motor fuel and petroleum products power fleets of vehicles to move products between factories and retailers. Companies also create a lot of paperwork, contributing to solid waste.

When it comes to the utilization of our natural resources, the United States Postal Service is a big player. In terms of annual revenue, the USPS actually ranks ahead of Chrysler, Hewlett-Packard, Kmart, and Sears, with revenues of just under \$55 billion in fiscal 1995. The USPS also maintains a fleet of more than 200,000 vehicles to support mail delivery. Those numbers make the Postal Service one of the country's largest consumers of electricity, fuels, and water. Despite its role in the federal government, the Postal Service is not exempt from environmental regulations at the state and local levels.

The Volpe Center's evolutionary approach to program development eliminated the need to "reinvent the wheel" each time an existing program was initiated in a new area. And, as with other programs in which Volpe personnel are involved, there is often a close match between the project requirements of one client and another.

THE GREENING OF THE POSTAL SERVICE

Although the size of the Postal Service and its potential use of natural resources is staggering, significant savings are achieved through the implementation of conservation programs. The USPS has been in the forefront of developing and implementing a broad range of programs to reduce consumption of resources and to preserve the environment.

As early as 1993, Postmaster General Marvin Runyon articulated his seven "Guiding Principles" for environmental

protection to underscore the Postal Service's commitment in this area. These principles dedicated the USPS to do more than just meet applicable environmental laws. Instead, the Postal Service took up the challenge to become a leader in environmental management by incorporating environmental considerations into its business planning. The USPS also required that both

employees and suppliers match its commitment to environmental preservation.

The Postal Service formed the office of Environmental Management Policy (EMP), with Charles Bravo as Manager, to assist in the development and implementation of a corporate policy for the USPS on environmental issues affecting postal facilities around the country as well as Postal Service managers and employees.

Since then, the USPS has received numerous awards for its conservation

efforts. It has dominated the government's annual "Closing the Circle" awards for its commitment to protecting and preserving the environment for future generations, and has received seven of approximately 20 awards given in both 1995 and 1996 for programs in affirmative procurement, recycling, and waste and pollution prevention. In addition, the Postal Service has won private sector awards from several organizations, including the National Recycling Coalition and the Direct Marketing Association.

DECENTRALIZED DECISION MAKING PRESENTS DEVELOPMENT OPPORTUNITY

Given the sheer size of its organization and the myriad aspects of its operation that have a potential impact on the environment, the USPS faced a monumental task in coordinating and administering its environmental efforts. So in 1994, EMP at the Postal Service enlisted the Volpe Center's support in implementing its corporate policy on environmental preservation, and to assist local USPS environmental managers on conservation, waste reduction, and compliance issues.

The task of implementing environmental programs at the USPS is complicated by the decentralized decision-making and approval processes in place. Decisions regarding environmental policy are made by EMP at USPS headquarters, while decisions regarding the funding of specific initiatives are made at the local level. And, because local operations each face a unique set of issues, their

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initiatives are tailored to meet the most critical local needs.

"Districts make decisions based on local needs," says Mattson. "Often there is an overlap with work being conducted in other districts or areas, and we get some synergy from those efforts. In

other cases, unique projects don't overlap at all, and we need to be sure that the local requests for Volpe support are consistent with the office of Environmental Management Policy."

But from this potential obstacle came opportunity. The flexibility the areas have in identifying their priorities allowed Volpe Center personnel to assist in the development of a wide range of pilot programs, each of which was driven by the unique requirements of a particular area. The impact of each of these individual programs could then be reviewed and the programs themselves modified before being applied in other locations. This evolutionary approach to program development eliminated the need to "reinvent the wheel" each time an existing program was initiated in a new area.

And, as with other programs in which Volpe personnel are involved, there is often a close match between the project requirements of one client and another. For example, design guidelines and maintenance and fueling procedures to support the deployment of alternative fuel vehicles utilizing compressed natural gas for the USPS were drawn largely from work previously conducted by Volpe Center personnel for the Federal Transit Administration on a compressed

natural gas program for public bus transportation.

PROJECTS NEAR AND FAR

The synergism of the Volpe Center's efforts in connection with the environmental preservation initiative of the USPS has led to the development of a range of programs from as near as the local post office to more far-reaching projects. For example, one of the first projects undertaken by Volpe personnel on behalf of the USPS involved the preparation of employee trip reduction plans (ETRPs) for 110 postal facilities in metropolitan New York, designated as an area of "severe ozone non-attainment" under the provisions of the Clean Air Act. In just five months, more than 15,000 surveys were processed and analyzed, and all ETRPs were submitted on time to state authorities.

Volpe Center staff have also been involved in water conservation on a project within the boundaries of the

Edwards Aquifer in south central Texas. Because of the Aquifer's susceptibility to pollution, water use in that area is subject to strict federal, state, and local regulations.

Personnel from the Volpe Center conducted water consumption surveys at postal facilities served by the Aquifer, and developed collateral materials including brochures, videos, and posters to explain and promote techniques to conserve water use both at work and at home.

Sometimes the involvement of the Volpe Center takes staff members to distant places, such as its assessment of an air-cushioned vehicle program for the transportation of mail in rural Alaska. Mail delivery in this part of the country is highly subsidized, and the Postal Service wanted to investigate environmentally sound alternatives to the air transport that had been used to deliver mail to more remote locations. That led to an assessment of the environmental impact of using air-cushioned vehicles to provide postal service to eight remote Native American villages in Alaska along the Kuskokwim River.

In other cases, participation by Volpe Center personnel requires involvement in employee health and safety issues. This is the case, for example, in a current project conducting site surveys for asbestos and lead-based paint. To date, more than 1,200 surveys have been conducted in the New England area, with an additional 1,000 scheduled for completion before July 1997. Work in this area includes conducting asbestos sampling, testing and labeling of potentially hazardous materials, and providing awareness training to postal employees. This work may eventually include asbestos remediation services at some Postal Service locations.



Work done by Volpe Center personnel helped support the deployment of alternative fuel vehicles utilizing compressed natural gas for the USPS.



Exploring improved means of mail transportation, including the use of hovercraft in Alaska, is part of the Volpe Center's support to the Postal Service.

THE ENVIRONMENTAL MANAGEMENT INFORMATION SYSTEM (EMIS)

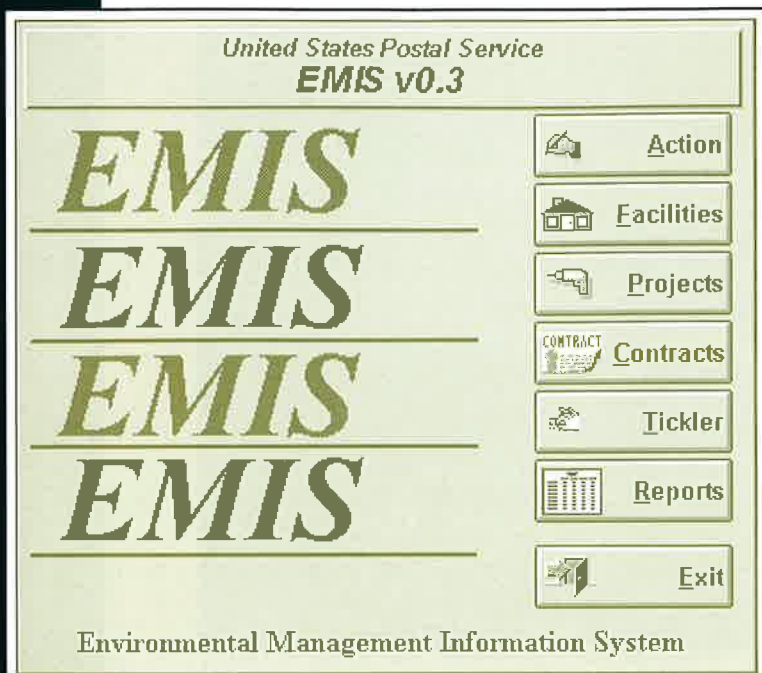
With dozens of environmental program initiatives being undertaken at any given time, involving hundreds of facilities and thousands of employees across the country, it was also critically important to develop an automated system that could both provide data on compliance efforts at each of the Postal Service's 40,000 facilities and produce management reports on the overall progress of the USPS's environmental program.

These requirements led the Volpe Center's Automation Technology Division to develop the Environmental Management Information System (EMIS). EMIS will play a key role in the management of the Postal Service's environmental conservation efforts. Paul Bushueff, chief of the Automated Technology Division, says, "It becomes the project management tool that integrates all facets of the environmental program."

Four modules of the EMIS system have been delivered to the USPS, covering recycling, storage tank management, asbestos management, and compliance audits. Additional modules in development are stormwater management, pollution prevention, lead-based paint detection, and energy conservation.

Supporting facility environmental assessments, survey modules have been developed to permit the electronic capture of survey information by contractors. Thus data on audits, asbestos, tanks, and lead-based paint can be automatically loaded into EMIS to provide the foundation for environmental management. A Web page is being developed to support access to environmental laws, regulations, management instructions, and best management practices.

Other supporting information systems activities include the development of a laptop-based mobile computing capability to support environmental coordinators in the field with a remote access to EMIS. The mobile systems can be



The main menu for the Environmental Management Information System (EMIS), an automated tool that tracks the Postal Service's environmental program.

integrated with global positioning systems receivers to establish location, allowing integration with geographic information systems.

The EMIS system is also being integrated into the Postal Service's existing computerized facilities management system, which provides detailed construction and repair information on each existing and planned postal facility. Data from EMIS will be merged with other postal systems data to track training on vehicular maintenance, material usage, and purchasing. The ultimate objective is to provide both a day-to-

day management tool and an executive-level reporting and performance measurement and documentation system on environmental efforts.

THE FUTURE OF THE POSTAL SERVICE'S ENVIRONMENTAL PROGRAM

The partnership between the USPS and the Volpe Center has led to significant advances in the environmental program at the Postal Service. But there is still much work that needs to be done. "The Postal Service has been at the forefront of government organizations initiating environmental actions," says Phil Mattson. "And the perception is that the programs that have been put into place have licked the problem. But there is still a long way to go."

For Paul Bushueff, the Postal Service's vision of its environmental efforts as a critical component of its overall business strategy is key to the continued success of its environmental programs. "The management of this organization sincerely believes that it can protect the environment at the same time that it improves the bottom line," he says. "By being environmentally smart, it is also being fiscally responsible."

Mattson sees the 85 new district environmental managers hired by the Postal Service gradually absorbing many of the functions currently being handled by the Volpe Center. He believes that the Center will continue to play a role in support of Postal Service headquarters as EMP strives for environmental excellence.